~~a unit[s] of a pixel group[s], and wherein the pixel group[s] is [being] comprised of two or more pixels.~~

7. ~~(Amended) The LCD according to claim 6,~~ wherein the pixel group[s] is ~~[are]~~ comprised of three pixels.

8. (Amended) ~~The LCD~~ according to claim 7, wherein the pixel group[s] is [are] comprised of a red pixel, a green pixel, and a blue pixel.

~~12 11. (Twice Amended) The LCD according to claim 6, wherein the gate lines are arranged~~ in groups of two, a first ~~gate line~~ and a second gate line, and a connecting member is formed ~~between the first~~ gate line and ~~the second~~ gate line[s].

~~15 14. (Amended) The LCD according to claim 13,~~ wherein common lines, applying the common voltage, are connected to the common electrode, the common lines comprising a first common line and a second common ~~line~~[s], and a connecting member connects the first common line ~~and a second common line~~[s].

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-16 are pending in the application, with claims 1 and 6 being the independent claim. These changes are believed to introduce no new matter and the amendments are fully supported by the specification as filed.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and they be withdrawn.

Description of Invention

The invention of the present Application is related to a liquid crystal display (LCD) and its driving method that can eliminate a bright difference between adjacent pixels caused by coupling capacitance between pixel electrodes of the adjacent data lines. This invention also prevents pixel defects resulting from short circuits.

Rejections Under 35 U.S.C. § 102

On page 2 of the Office Action, the Examiner rejected claims 1-5 under 35 U.S.C. §102 (e) as being anticipated by U.S. Patent No. 5,724,057 issued to Kimura *et al.* ("Kimura"). It is submitted that claim 1 is patentable over Kimura.

As discussed above, Claim 1 is directed to a method for driving an LCD to eliminate brightness differences caused by coupling capacitance between pixel electrodes and their adjacent data lines. In contrast, Kimura discloses a method for changing the contrast of display by controlling the amount of voltages applied to the pixel. (*See* Kimura, col. , ll. 1-12). The Examiner alleges that Kimura teaches a method for driving a liquid crystal display and discloses a common electrode driving section and a pixel electrode comprising applying common voltage to common electrodes (22, 20), applying data voltage and common voltage of a positive polarity and a negative polarity to liquid crystal 18 as claimed, citing numerals 22 and 20 of Fig. 1 and column 9, lines 45-67 of Kimura.

Newly amended claims recited a method for driving a liquid crystal display having a matrix of a plurality of pixels with a common electrode and a pixel electrode, comprising a step

of applying a data voltage of a positive polarity and a negative polarity with respect to the common voltage alternately to groups of a plurality of pixels that are adjacently located, wherein the polarity of the data voltage applied to the pixels in the group is the same.

Nowhere in Kimura, this feature is disclosed or suggested. Kimura merely discloses that, in an inversion mode, the magnitude of the voltage applied to the liquid crystal is changed on the contrast of the image displayed on the liquid crystal display device. (*See* Kimura, col. 3, ll. 54-64, col. 9, ll. 45-67) Kimura neither discloses nor suggests applying a data voltage alternatively to groups of a plurality of pixels that are adjacently located, wherein the polarity of the data voltage applied to the pixels in the group is the same.

Therefore, Claim 1 is patentable over Kimura. Likewise, Claims 2-5, which are dependent from Claim 1 are also patentable over Kimura. Furthermore, unlike the Examiner's allegation, the pixel is not inherently comprised of three pixels which are a red pixel, a green pixel, and a blue pixel. Kimura neither discloses nor suggests three pixels of a red pixel, a green pixel, and a blue pixel. Likewise, nowhere in Kimura, it is suggested or disclosed that data voltages with the same polarity for the common voltage are applied to the pixels in the same column.

Therefore, Claims 1-5 are patentable over Kimura. It is respectfully requested that all the outstanding rejections and objections over Claims 1-5 be withdrawn and pass those claims to allowance.

Rejections Under 35 U.S.C. § 103

On page 3 of the Office Action, the Examiner rejected claims 6-16 under 35 U.S.C. §103(a) as being unpatentable over Kimura (U.S. Patent No. 5,724.057).

The Examiner alleges that Kimura teaches a substrate, a plurality of gate lines formed on the substrate, a plurality of data lines intersecting the gate lines, a plurality of pixels formed to regions defined by the data lines and the gate lines, and wherein the polarity of the data voltage for the common voltage inverts. The Examiner correctly admits that Kimura does not teach inversion in units of groups comprising of two or more pixels and having a connecting member formed between the gate lines or connecting the common line.

However, the Examiner alleges that it would have been obvious to one of ordinary skilled in the art to utilize the pixels in groups because it would prevent pixel defects by utilizing them in group than singularly. Unlike the Examiner's allegation, Kimura neither discloses nor suggests grouping pixels for any purpose and any motivation to do so. Furthermore, the Examiner failed to point out any references that show utilizing the pixels in groups as claimed in the present Application.

Therefore, Claim 6 is patentable over Kimura. Likewise, Claims 7-16 that are dependent from Claim 6 are also patentable over Kimura.

Furthermore, regarding Claims 7 and 8, Kimura does not teach explicitly nor inherently a pixel comprised of three pixels which are a red pixel, a green pixel, and a blue pixel.

Regarding Claims 9 and 10, the Examiner failed to show that it is common or well known in the art to arrange the data lines as claimed in the present Application.

Regarding Claims 13-15, Kimura may teach a common voltage applied through a common electrode formed on the substrate. However, being dependent from Claim 6 that is

patentable over Kimura, Claims 13-15 are patentable over Kimura, too. Furthermore, Kimura neither discloses nor suggests a connecting member that connects the first common line and the second common line.

Regarding Claim 16, unlike the Examiner's allegation, Kimura neither discloses nor suggests a pixel group comprised of a column of red pixels, a column of green pixels and a column of blue pixels.

Therefore, Claims 6-16 are patentable over Kimura.

As such, it is submitted that the invention recited in Claims 1-16 as amended are patentable over Kimura. A withdrawal of the outstanding rejections and issuance of Claims 1-16 are therefore respectfully requested.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete response has been made to the outstanding Office Action and, as such, the present application with Claims 1-16 is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

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